LifeChoice Activox™
Portable Oxygen Concentrator
Operator's Manual

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INTRODUCTION

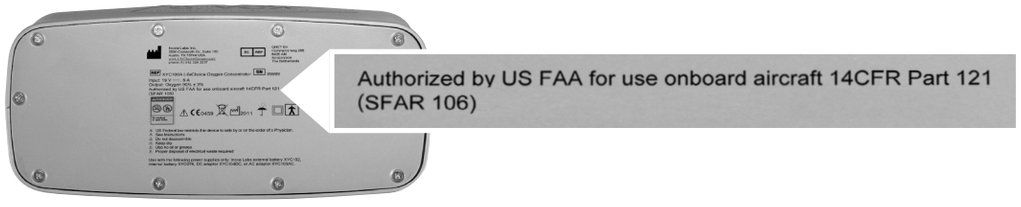
The Operator's Manual will provide familiarity with the LifeChoice Activox Portable Oxygen Concentrator (POC) and its accessories. Be sure to read all of the enclosed information in its entirety before using the LifeChoice Activox POC. The LifeChoice Activox POC is an internally powered, Type BF device when powered by the internal battery and a Class II, Type BF device when connected to the external AC Adapter/Charger, DC Adapter/Charger or rechargeable external battery. The essential performance of the LifeChoice Activox POC is to provide oxygen at a volume that remains within tolerance (the tolerance was defined based on technical judgment from within the manufacturer's expertise in this specific medical application). In addition, the device's ability to detect certain error conditions (such as low concentration or no breath) and create an alarm is also considered a part of essential performance.

APPLICATION

This manual applies to the LifeChoice Activox POC REF XYC100B.

INDICATIONS FOR USE: The LifeChoice Activox Oxygen Concentrator is used on a prescriptive basis by patients who are diagnosed as requiring supplemental oxygen. This oxygen concentrator will provide supplemental, high concentration oxygen to these patients. It is not life-supporting nor life-sustaining. It may be used continuously in a home, institution or travel environment. The LifeChoice Activox is also portable.

The LifeChoice Activox POC is FAA-approved for air travel. The required FAA label location is on the bottom of the LifeChoice Activox POC. The FAA-approved POC list shows *Inova Labs LifeChoice Activox*. Every airline has specific information required for traveling with oxygen. Before traveling, review your airline's specific requirements. The Inova Labs website contains additional information at **www.InovaLabs.com/resources**.



SYMBOL DESCRIPTIONS

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Temperature Limitation		Radio Frequency
	Humidity Limitation	19V ⎓	DC Power		Type BF Applied Part Device that has conductive contact with patient
	Waste Disposal		Class II Equipment		
REF	Catalogue Number		General Warning, Caution, Risk of Danger	CE	CE Marking of Conformity
	Keep Dry		Danger, No Smoking or Open Flame	EC REP	EU Authorized Representative
	External Rechargeable Battery			O_2	Gas Flow

WARNINGS

1. This device is not intended to be life-sustaining or life-supporting.
2. This device should be used only when prescribed by a physician.
3. In certain circumstances, oxygen therapy can be hazardous. Please seek medical advice before using the LifeChoice Activox POC.
4. U.S. Federal law restricts this device to sale by or on the order of a physician.
5. The LifeChoice Activox POC is designed to provide a flow of high purity oxygen. Patients with a fast breathing rate or requiring high oxygen flow may require more oxygen than the LifeChoice Activox POC can produce and, therefore, may not be suitable candidates.
6. This device is not suitable for patients who are unable to hear or see alarms or communicate discomfort. If the patient shows any signs of discomfort, a physician should be consulted immediately.
7. It is the responsibility of the patient and/or provider to make back-up arrangements for an alternative oxygen supply when traveling; Inova Labs Inc. assumes no liability for persons choosing not to adhere to manufacturer recommendations.
8. Availability of an alternate source of oxygen is required in case of power outage or mechanical failure. Consult your physician or medical equipment supplier for the type of back-up system required.
9. The LifeChoice Activox POC is designed to be used in the provided/approved carry case.

10. The LifeChoice Activox POC should be located so as to avoid pollutants or fumes.

11. The LifeChoice Activox POC does not require the use of any lubricants. DO NOT use oil, grease or petroleum-based products on or near the LifeChoice Activox POC. DO NOT use power supplies/adapters, carry bags or accessories other than those which come with the LifeChoice Activox POC. The use of non-specified accessories may impair equipment performance and will void all warranties.

12. The LifeChoice Activox POC produces enriched oxygen gas which accelerates combustion. DO NOT allow smoking or open flames within 10 feet (3 meters) of this device while in use. Cigarette/cigar/pipe smoking while using the LifeChoice Activox POC will void all warranties.

13. Never operate the LifeChoice Activox POC in the accessory bag nor any other enclosed area (e.g. cabinets, other bags, etc.). This is provided for accessories only.

14. DO NOT submerge the LifeChoice Activox POC or any of the accessories in liquid. DO NOT expose to water or precipitation. DO NOT operate in rain as this could lead to damage.

15. Portable and mobile RF communications equipment can affect medical electrical equipment.

16. The LifeChoice Activox POC should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the LifeChoice Activox POC should be observed to verify normal operation in the configuration in which it will be used.

17. The LifeChoice Activox POC and external battery pack contains lithium-ion batteries that are subject to special shipping regulations. If shipping either the POC or battery pack, notify the shipper that the shipment will contain lithium-ion batteries.

18. When traveling by air, the LifeChoice Activox POC and external battery must be transported as carry-on (NOT checked) baggage.

19. DO NOT operate the unit outside of specified operational environmental conditions.

LIFECHOICE ACTIVOX POC STANDARD PACKAGE

The LifeChoice Activox POC can be operated using AC power, DC power or internal battery power while inside the approved carry case. All necessary components are included in the Standard Package. The LifeChoice Activox POC Standard Package includes the following:

1. **Accessory Bag**
2. **LifeChoice Activox POC**
3. **4-Way Carry Case**
   Use as a backpack, shoulder strap, waist pack or briefcase
4. **AC Power Adapter**
   (universal 100v – 240v; 50hz – 60hz)
5. **DC Power Adapter**
   (12v) with standard "car" adapter plug
6. **(1) Standard Single Lumen 7-foot Long Nasal Cannula**
7. **Adjustable Straps**
   For use with 4-Way Carry Case

(1) 4-Way Carry Case with Adjustable Strap System

(1) Standard Single Lumen 7-Foot (2-meter) Long Nasal Cannula*

(1) LifeChoice Activox POC Accessory Bag

(1) LifeChoice Activox Portable Oxygen Concentrator with 12-hour Internal Battery at 1 LPMeq (Reference Battery Life table since actual time will vary depending upon breath rate, dose, and age of battery.)

(1) AC Adapter/Charger (universal 100v – 240v; 50hz – 60hz)

(1) DC Adapter/Charger (12v) with standard "car" adapter plug

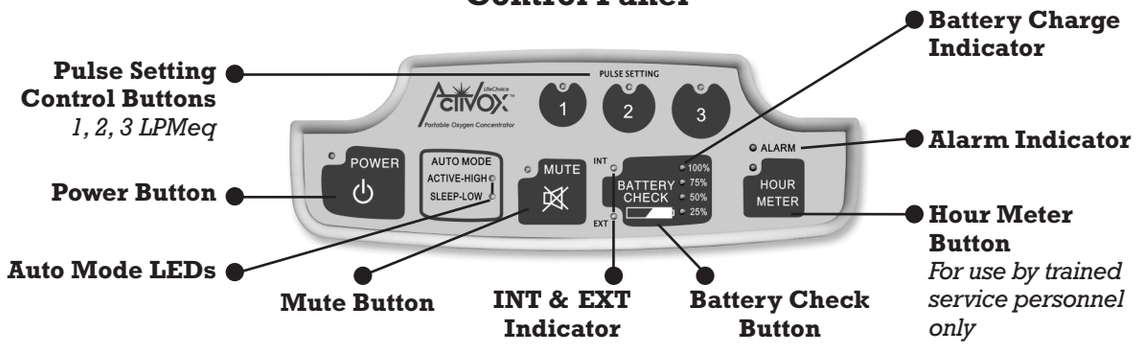
An External Battery is available for purchase separately which provides 3 hours of additional portable time. (Reference Battery Life table since actual time will vary depending upon breath rate, dose and age of battery.)

*Nasal cannula may not be included in XYC100B package in all countries based on local international requirements.

USER CONTROLS

The user controls on the LifeChoice Activox POC are specifically designed to be pressed by a finger. Never press any of the buttons with a pen, screwdriver, stylus or any other object. Pressing the buttons with any hard, sharp and/or small object can damage the user controls and void all warranties. The following items are essential parts of the user controls for the LifeChoice Activox POC:

Control Panel



Indicator Lights: Colored LED lights indicate either a change in operating status or a condition that may need response (alarm).

Audible Signals: An audible signal (beep) indicates either a change in operating status or a condition that may need response (alarm). Subjective audio response will vary among different people due to different hearing abilities.

Power Button: To turn the LifeChoice Activox POC on or off, press the Power Button.

Auto Mode LEDs: There are two inhalation sensitivity modes on the control panel: Active-High and Sleep-Low, which automatically adjust based on oxygen demand (e.g breathing patterns) requirements. (Reference Control Panel diagram.)

Mute Button: The LifeChoice Activox POC features a mute function to disable audible alarms during operation. If an alarm has been muted, the amber Mute Button LED will be illuminated. (Reference Control Panel diagram.) Please use this function appropriately since it silences information about the health condition of the device (important audio signals).

INT and EXT LED: These LED lights will indicate which power source the unit is using or charging. The INT LED represents the internal battery, while the EXT LED represents the external battery.

Battery Check Button: The Battery Check Button causes the corresponding battery charge level (e.g. internal or external battery) to be displayed. (Reference Control Panel diagram.)

Battery Charge Indicator: The Battery Charge Indicator consists of four LEDs labeled “25%”, “50%”, “75%”, and “100%”. (Reference Control Panel diagram.) Charge-level indication is approximate except at full charge when all four LEDs are solid green. Use the following examples to interpret other charge levels:

Charge Level	25% LED	50% LED	75% LED	100% LED
>0% and <13%	Flashing Green	Off	Off	Off
>13% and < 26%	Solid Green	Off	Off	Off
>26% and <37%	Solid Green	Flashing Green	Off	Off
>37% and <51%	Solid Green	Solid Green	Off	Off
>51% and <63%	Solid Green	Solid Green	Flashing Green	Off
>63% and <76%	Solid Green	Solid Green	Solid Green	Off
>76% and < 87%	Solid Green	Solid Green	Solid Green	Flashing Green
>87%	Solid Green	Solid Green	Solid Green	Solid Green

Pulse Setting Control Buttons: There are three individual Pulse Setting Control Buttons on the control panel: 1, 2, and 3 which are pulse equivalent to 1, 2, or 3 liters per minute (LPMeq) settings on a continuous flow device. (Reference Control Panel diagram.)

Hour Meter Button: The LifeChoice Activox POC will read and display the number of hours that the unit has been used. (Refer to Routine Maintenance section.)

Nasal Cannula: A standard single lumen nasal cannula or equivalent must be used with the LifeChoice Activox POC to provide oxygen from the concentrator. A standard single lumen type cannula, 7-foot (2-meter), is recommended for use. An Adult Nasal Cannula like #1107 by Ventlab Corporation is supplied with each LifeChoice Activox POC.* For replacement cannulas, please contact your local medical equipment supplier. Follow cleaning and care instructions provided with the nasal cannula.

⚠ **CAUTION:** Use of some administration accessories not specified for use with this oxygen concentrator may impair the performance.

*Nasal cannula may not be included in XYC100B package in all countries based on local international requirements.

PART NAMES

Part Names

Cannula Nozzle Fitting: The nasal cannula connects to the oxygen output nozzle at the top of the LifeChoice Activox POC. Do not place the cannula into nasal passages until the LifeChoice Activox POC is fully powered on. Breathing through the cannula during start-up will prevent the system from powering on.

Control Panel: (See User Controls section)

Fan Inlet Vent: Cooling air is drawn in through this opening. (See Maintenance section for cleaning instructions.)

Fan Outlet Vent: Processed air is exhausted through this opening.

External Battery Port: Connect external battery (if used) to this port. (This connection is to be used solely with the specified external battery.) Precaution: Please pay attention to the orientation of the connector. Wrong alignment could cause damage to the connector.

FAA Approval Sticker: Located on the bottom of the unit.

OPERATING INSTRUCTIONS

BEFORE USING THE LIFECHOICE ACTIVOX POC FOR THE FIRST TIME

1. The LifeChoice Activox POC should be charged for a minimum of four hours before initial use. Begin charging by connecting the AC Adapter/Charger to the LifeChoice Activox POC and plugging it into an electrical outlet.
2. Make sure to verify that the Battery Check LED labeled INT is solid green. This indicates that the system recognizes the external power source and is charging the internal battery.

   If an external battery was purchased with the LifeChoice Activox POC, connect it to the External Battery Port. It should take approximately three hours to fully charge the external battery (with internal battery already fully charged), and seven hours to charge both the internal and external batteries together. (See Battery Charging section for more details.)

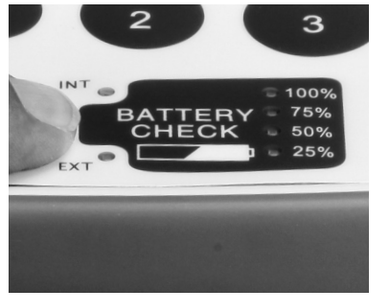
   Unless an optional external battery charger has been purchased separately, the external battery can only be charged when connected directly to the LifeChoice Activox POC. (Contact your POC provider or customer support for information on purchasing the optional charger.) Never use an external battery that is not authorized by Inova Labs Inc.
3. The LifeChoice Activox POC is recommended and designed to be operated and stored in its carrying case at all times.
4. Connect the nasal cannula securely to the LifeChoice Activox POC cannula nozzle fitting.

POWERING THE LIFECHOICE ACTIVOX POC

The LifeChoice Activox POC can be powered in four different ways: (1) internal battery, (2) AC Adapter/Charger, (3) DC Adapter/Charger, or (4) external battery (optional, sold separately from the Standard Package). The rechargeable batteries are maintenance-free and can only be purchased at the factory or through an authorized repair facility.

The following specifics apply to each of the four modes (listed above) of powering the LifeChoice Activox POC:

1. **Internal Battery:** A rechargeable internal battery is located within each LifeChoice Activox POC unit. When fully charged, it supplies power to the LifeChoice Activox POC for 12 hours. (Reference Battery Life table since actual time will vary depending upon breath rate and Pulse Setting.)



When the LifeChoice Activox POC is being powered from the internal battery, the Battery Check LED labeled INT will be slowly flashing. Pushing the Battery Check Button will display the charge level of the internal battery.

If not connected to the AC or DC Adapter/Charger, the internal battery will slowly discharge over time even when not in use. Always check the battery level prior to use to ensure adequate charge level.

2. **AC Adapter/Charger:** An AC Adapter/Charger allows the LifeChoice Activox POC to be powered from a standard 100-240 VAC, 50/60 Hz outlet. When the unit is operated from an AC Adapter/ Charger, power from the AC outlet powers the unit and recharges the internal and/or external battery. (See Battery Charging section for details.)

Using an AC Adapter/Charger that is not specified by Inova Labs Inc. for use with the LifeChoice Activox POC may damage the unit and will void all warranties.

3. **DC Adapter/Charger:** A DC Adapter/Charger can be connected from the LifeChoice Activox POC unit to a vehicle's (car, boat, motor home, etc.) standard 12 VDC outlet. When the system is connected to the DC outlet, power from the vehicle battery powers the LifeChoice Activox POC unit and recharges the internal and/or external battery. (See Battery Charging section for details.)

The 12 VDC outlets in some pre-2000 model cars will not provide sufficient current to operate the POC and charge the battery at the same time. Verify that any DC outlet used can provide at least 10 amps at 12 VDC. (Car auxiliary power varies significantly; therefore the rate of charging will vary.)

4. **External Battery:** To power the LifeChoice Activox POC from an external battery, connect the external battery to the external battery connector port. A fully charged external battery will supply power to the LifeChoice Activox POC for 3 hours. (Reference Battery Life table since actual time will vary depending upon breath rate and Pulse Setting.)

   When the LifeChoice Activox POC is being powered from the external battery, the Battery Check LED labeled EXT will be slowly flashing. Pushing the Battery Check Button will display the charge level of the external battery.

   NOTE: After turning on the LifeChoice Activox POC, allow 30 seconds for the unit to reach stated performance.

BATTERY CHARGING

To charge the internal and/or external battery, connect the LifeChoice Activox POC to either an AC or DC Adapter/Charger and a suitable outlet. If the external battery is being charged, also connect the external battery to the External Battery Port. Confirm that one of the Battery Check LEDs, either INT or EXT, is solid green. This indicates that an AC or DC external power source has been recognized and that battery charging is in progress.

If an external battery is connected to the LifeChoice Activox POC, it is important to understand the battery charging sequence. By design, the internal battery is charged first. That means that the external battery will not start charging until the internal battery is charged to a 100% level. Use the INT and EXT Battery Check LEDs to determine which (if any) batteries are charging.

To check the battery charge level while charging is in progress, press the Battery Check Button. The charge level will be displayed as indicated in the Battery Charge Indicator section (See User Controls). When a battery is fully charged, the corresponding Battery Check LED (INT or EXT) will be off.

It takes a minimum of four hours for a fully discharged internal battery to reach a 100% charge level. If both internal and external batteries are fully discharged, it can take up to seven hours to achieve a 100% charge level in both batteries. It is recommended to recharge the batteries, even if only partially depleted, as often as possible. The batteries cannot be overcharged, and it is recommended to leave the LifeChoice Activox POC plugged in via the AC or DC Adapter/Charger as often as possible.

In the event the power supply is interrupted to the LifeChoice Activox POC when the AC or DC charger is being used, a two-second audible alarm will sound to inform you that power has been lost. Check that the charger has been properly connected to the power supply.

The rechargeable batteries are maintenance-free and can only be exchanged at the factory.

NOTE: If the LifeChoice Activox POC is powered off and either the AC or DC Adapter/Chargers are connected to the LifeChoice Activox POC after charging is complete, the internal fans may continue to operate for an additional period of time until the temperature inside the unit is sufficiently cool.

REPRESSURIZATION

If the unit has not been used for a period of one or more days, it will automatically repressurize itself. During this time, you may hear the compressors running for a few seconds.

OPERATING PROCEDURE

1. Locate and position the LifeChoice Activox POC so that the Fan Inlet Vent and Fan Outlet Vent are not obstructed. The unit, particularly the air inlet slots and the air outlet areas, should be positioned in a well-ventilated space.

2. Power the LifeChoice Activox POC using one of the four modes described in the Powering the LifeChoice Activox POC section above.

3. Press the Power Button once to turn the unit on. An audible beep will occur and the Power LED, the Auto Mode Active-High LED and the Pulse Setting of 1 LED will illuminate solid green. This indicates that the Life-Choice Activox POC is powered on, is ready for use, and that settings may now be changed. Pressing the Power Button for an extended time after the audible beep will cause the system to turn back off.

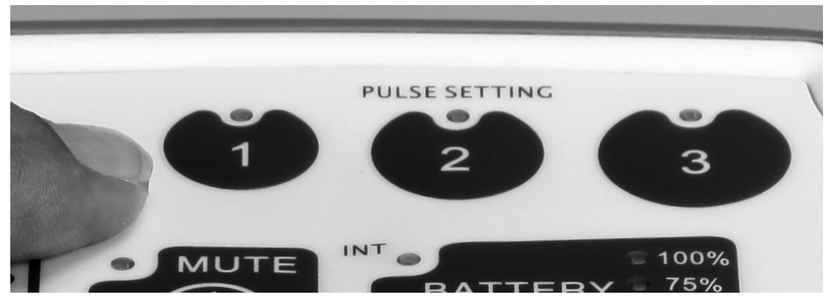
NOTE: After the initial power on, the Pulse Setting LED corresponding to the last flow rate used will illuminate.

⚠ **CAUTION:** DO NOT place the cannula into nasal passages until the LifeChoice Activox POC is fully powered on. Breathing through the cannula during start-up will prevent the system from powering on.

4. There are two inhalation sensitivity modes on the control panel:

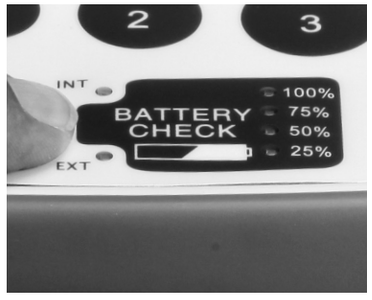
Active-High and Sleep-Low which automatically adjust based on oxygen demand (e.g. breathing pattern) requirements. No action is required to start the delivery of oxygen.

5. Select a Pulse Setting of 1, 2, or 3 as prescribed by your doctor. These settings are equivalent to 1, 2, or 3 LPM settings on a continuous flow device. The green LED above the selected setting illuminates and will flash each time inhalation is detected indicating that a pulse-wave of oxygen has been delivered.



6. Place the nasal cannula in the nasal passages and breathe normally. When the LifeChoice Activox POC senses inhalation, oxygen is supplied through the cannula. The duration and size of the pulse is dependent upon the Pulse Setting selected.

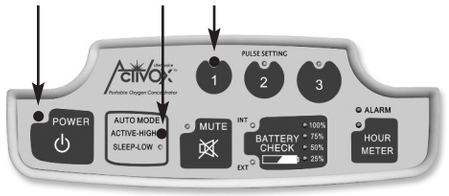
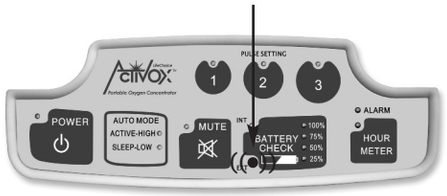
7. Check to make sure your unit's battery is fully charged before venturing out with the LifeChoice Activox POC for the first time. (See Battery Charge Indicator section, User Controls).



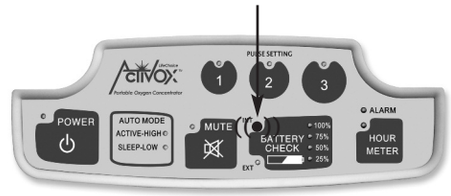
8. To turn the LifeChoice Activox POC off, press the Power Button and hold for 2 seconds until the green Power LED goes off and the unit shuts down. After the LifeChoice Activox POC is powered off, the internal fans may continue to operate for an additional period of time until the temperature inside the unit is sufficiently cool.

ALARMS/LIGHT INDICATORS

NORMAL OPERATION INDICATORS

Normal Operation	Audible Alert	Light Indication	Action
LifeChoice Activox POC turned on	Brief Audible Tone	 Green LEDs of *Power*, *Active-High* and *Pulse Setting of 1* are illuminated. Note: After the initial power on, the Pulse Setting LED corresponding to the last flow rate used will illuminate	You may begin to use the LifeChoice Activox POC unit in 30 seconds
LifeChoice Activox POC has detected an inhalation/ breath and is delivering a pulse of oxygen	None	Green LED of selected *Pulse Setting* flashes with each breath	LifeChoice Activox POC is functioning normally
LifeChoice Activox POC powered by internal battery	None	Green LED light labeled *INT* slowly flashes	LifeChoice Activox POC is functioning normally
LifeChoice Activox POC powered by external battery	None	 Green LED light labeled *EXT* slowly flashes	LifeChoice Activox POC is functioning normally

ALARM TABLE

Problem	Audible Alert	Light Indication	Action
No breath detected by the unit for approximately 75 seconds	Intermittent beep	Amber *Alarm* LED light flashes	Check the cannula connection. Ensure that you are breathing through your nose. After the system detects a breath, the alarm will shut off. *If the alarm persists, contact your equipment provider.*
Low Battery Alarm *(Approximately 10 minutes of battery power)*	Single loud, long beep every 60 seconds	 Amber *Battery Check* LED labeled *INT* slowly flashes	Connect the LifeChoice Activox POC to an external power source, or change to another source of oxygen.
Critical Low Battery Alarm *(Approximately 30 seconds of battery power)*	Fast audible beep *(Unit shuts down)*	Amber *Battery Check* LED labeled *INT* begins flashing quickly	Connect the LifeChoice Activox POC to an external power source, or change to another source of oxygen.
General malfunction of the LifeChoice Activox POC	Continuous audible alarm	*Alarm* LED is solid Amber	Turn off the unit. Change to another source of oxygen and contact your equipment provider.

ROUTINE MAINTENANCE

The LifeChoice Activox POC does not have any end-user repairable parts.

Fan Inlet Vent Cleaning: There is one inlet vent located on the right side (facing the unit) of the LifeChoice Activox POC. The carrying case for the unit has mesh material corresponding to the location of the fan inlet vent. You should visually check the carrying case to ensure that there is no build-up of lint, hair or other materials that could obstruct the flow of air into the unit's fan inlet vent. Remove any material build-up using a soft brush.

At least once a month inspect the grille of the intake vent and if it appears dirty, use a dry cotton swab (Q-Tip® or similar) to clean it. Never use alcohol, solvents, or petroleum distillates for cleaning.

Unit and Carrying Case Cleaning: If it is necessary to clean the unit and/or carrying case, use only warm water and a mild liquid dish detergent. Dampen a cloth in the solution and carefully wipe the outside surfaces of the unit and/or carrying case.

⚠ **WARNING:** DO NOT use alcohol, solvents, polishes or any oily substances since they may be flammable.

Nasal Cannula Inspection: At least once a week, visually inspect the nasal cannula. Make sure there are no kinks or obstructions. Replace as needed with a standard 7-foot (2-meter) single-lumen type cannula from your local medical equipment supplier.

Reserve Oxygen Supply: Your equipment provider should provide or suggest an alternative source of supplemental oxygen therapy in case there is a mechanical failure or power outage.

Hour Meter: The hour meter function is for use by trained service personnel.

SPECIFICATIONS

Maximum outlet pressure: 19 psi (131 kPa)

Device Electrical Classification: Class II, Type BF

Oxygen Concentration: 90% (+/- 3%)*

Oxygen Concentration Sensor Alarm: 85% or less

Flow Control Pulse Settings: 1, 2, & 3 LPM (Equivalent to Continuous Flow) ±20%

Mode of Operation: Continuous equipment and mobility: portable

Weight: 4.83 lbs.

Dimensions: 9.05" Width x 7.875" Height x 4.38" Depth

Power Requirement: AC 100 to 240 VAC, 50 to 60 Hz; DC 12 to 19 VDC or Battery 12-16.8 VDC

LifeChoice Activox POC Input: 19VDC, 6A

External AC Power Adapter/Charger, XYC103AC-Input: 100-240VAC, 2.5A; Output: 19V, 6.3A

External DC Power Adapter/Charger, XYC104DC-Input: 11.5-16VDC, 10A; Output: 19V, 6.3A

Approximate Internal Battery Duration: See Battery Life Table on following page

Minimum Internal Battery Recharge Time: 4 Hours

Sound: At 10 Feet (3m) - 41 dB at 1 LPMeq, 44 dB at 2 LPMeq, 46 dB at 3 LPMeq

Environmental Conditions for Use, Storage and Transport:

Operational Temperature: 41°F to 104°F (5°C to 40°C)

Operational Humidity Range: 15% to 95%, Non-condensing

Operational Altitude Max: 10,000 Feet (3km) or 10.1 PSIA (522 mmHg)

Storage Temperature: 32°F to 140°F (0°C to 60°C)

Storage Humidity Range: Up to 95%, Non-condensing

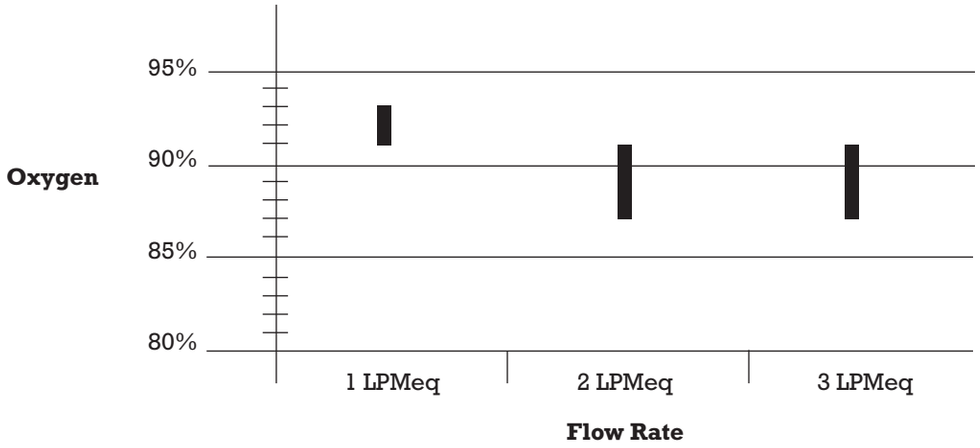
* When powered by the external AC adapter, external DC adapter, or external or internal battery.

BATTERY LIFE TABLE

Run Time (@15 BPM)	**Pulse Setting**		
	1 LPMeq	2 LPMeq	3 LPMeq
Internal Battery	12 Hours	6 Hours	5 Hours
External Battery	3 Hours	3 Hours	2 Hours

OXYGEN CONCENTRATION OVER ALTITUDE AND FLOW RATE

Oxygen Concentration Over Altitude Range 0 - 4000 m



EMC INFORMATION

Medical electrical equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the accompanying tables.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The LifeChoice® Activox Portable Oxygen Concentrator Model XYC100B is intended for use in the electromagnetic environment specified below. The customer or the user of the Model XYC100B should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Electrostatic Discharge (ESD) IEC 61000-4-2	+/-6 kV contact +/-8 kV air	+/-6 kV contact +/-8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical Fast Transient/Burst IEC 61000-4-4	+/-2 kV for power supply lines +/-1kV for input/output lines	+/-2 kV for power supply lines Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	+/-1 kV line-to-line +/-2 kV line-to-earth	+/-1 kV line-to-line +/-2 kV line-to-earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	< 5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles < 5% U_T (>95% dip in U_T) for 5 seconds	< 5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles < 5% U_T (>95% dip in U_T) for 5 seconds	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Model XYC100B requires continued operation during power mains interruptions, it is recommended that the Model XYC100B be powered from an uninterruptible power supply or a battery.
Power Frequency (50/60Hz) Magnetic Field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE: U_T is the a.c. mains voltage prior to application of the test level

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The LifeChoice® Activox Portable Oxygen Concentrator Model XYC100B is intended for use in the electromagnetic environment specified below. The customer or the user of the Model XYC100B should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
			Portable and Mobile RF communications equipment should be used no closer to any part of the Model XYC100B, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended Separation Distance**
Conducted RF IEC 61000-4-6	3 Vrms 150kHz-80MHz	3 V	d = 1.17 √P
Radiated RF IEC 61000-4-3	3 V/m 80MHz-2.5GHz	3 V/m	d = 1.17 √P, 80MHz to 800MHz d = 2.33 √P, 800MHz to 2.5GHz

Where 'P' is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and 'd' is the recommended separation distance in meters (m).

Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b]

Interference may occur in the vicinity of equipment marked with the following symbol: (((•)))

NOTE 1: At 80MHz and 800MHz, the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Model XYC100B is to used exceeds the applicable RF compliance level above, the Model XYC100B should be observed to verify normal operation. If the abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Model XYC100B.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended Separation Distances Between Portable and Mobile RF Communications Equipment and The LifeChoice® Activox Portable Oxygen Concentrator Model XYC100B

The LifeChoice® Activox Portable Oxygen Concentrator Model XYC100B is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Model XYC100B can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Model XYC100B as recommended below, according to the maximum output power of the communications equipment.

Separation Distance According to the Frequency of Transmitter (m)

Rated Maximum Output Power of Transmitter (W)	150kHz to 80MHz d=1.17 √P	80MHz to 800MHz d=1.17 √P	800MHz to 2.5GHz d=2.33 √P
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.2	1.2	2.3
10	3.7	3.7	7.4
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance 'd' in meters can be estimated using the equation applicable to the frequency of the transmitter, where 'P' is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80MHz and 800MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

Guidance and Manufacturer's Declaration - Electromagnetic Emissions

The LifeChoice® Activox Portable Oxygen Concentrator Model XYC100B is intended for use in the electromagnetic environment specified below. The customer or the user of the Model XYC100B should assure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment - Guidance
RF Emissions, CISPR 11	Group 1	The Model XYC100B uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions, CISPR 11	Class B	The Model XYC100B is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic Emissions, IEC 61000-3-2	Class A	
Voltage Fluctuations/Flicker Emissions, IEC 61000-3-3	Complies	

ACCESSORIES (ADDITIONAL/REPLACEMENT/SPARE)

Product Number: XYC105B
Description: 4-Way Carry Case. Comes complete with adjustable strap system that allows case to be used as a backpack, shoulder strap, waist strap or carried as a briefcase. *Included with purchase of LifeChoice Activox POC.*

Product Number: XYC103AC 10' (3m)
Description: AC Adapter/Charger. Used to charge and run the LifeChoice Activox POC simultaneously. *Included with purchase of LifeChoice Activox POC.**

Product Number: XYC104DC 6' (1.8m)
Description: DC Adapter/Charger. Used to charge and run the LifeChoice Activox POC simultaneously. For use at home or in the car, RV, motor boat, etc. *Included with purchase of LifeChoice Activox POC.**

Product Number: XYC262
Description: 7'(2.1m) Standard Single Lumen Cannula. *Included with purchase of LifeChoice Activox POC.*†

Product Number: XYC340B
Description: Accessory Bag. *Included with purchase of LifeChoice Activox POC.*

Product Number: XYC448AC
Description: External Battery Charger Module. *Not included with purchase of LifeChoice Activox POC Standard Package.*

Product Number: XYC102B
Description: Extended Life External Battery. *Not included with purchase of LifeChoice Activox POC Standard Package.*

*Accessories, adapters, and cables other than those specified, with the exception of adapters and cables sold by the manufacturer of the medical electrical equipment as replacement parts for internal components, may result in increased emissions or decreased immunity of the Model XYC100B.

† Cannula may not be included in XYC100B packages in all countries based on local international requirements.

TECHNICAL SUPPORT

Please contact the local medical equipment company that provided or sold you the LifeChoice Activox POC for any technical or emergency support.

If any additional information is needed, please contact Inova Labs' Customer Care Team toll-free at 1.800.220.0977 or 1.512.617.1700.

WARRANTY

INOVA LABS, INC. LIMITED WARRANTY AND DISCLAIMER ("Limited Warranty")

NOTE: This Limited Warranty does not affect Purchaser's statutory rights under applicable national laws.

Inova Labs, Inc. ("Inova Labs") warrants that each new LifeChoice Activox™ Portable Oxygen Concentrator ("POC") shall be free from defects under normal use, operation and service for three (3) years. Any LifeChoice Activox™ POC Accessories, the Sieve Bed and all Batteries are warranted for one (1) year. See the table below for detailed coverage under this Limited Warranty.

The Limited Warranty extends only to the first Purchaser (it is not transferable) and begins on the date of purchase as evidenced by the sales receipt directly from Inova Labs or through one of its authorized distributors. This Limited Warranty is only offered in connection with sales through Inova Labs' authorized distribution channels.

The LifeChoice Activox™ POC produces enriched oxygen gas which accelerates combustion. Do not allow smoking or open flames within 10 feet (3 meters) of this device while in use. Cigarette/cigar/pipe smoking while using the LifeChoice Activox™ POC will void all warranties.

Extended Warranty is available — two additional years maximum. Extended warranty covers the same components as the limited three-year warranty. Batteries, sieve bed replacement and accessories remain at one-year warranty. Extended warranties are offered to the original owner only and are non-transferrable. Extended warranties must be purchased at the time of original purchase of the LifeChoice Activox™.

ITEM	LENGTH OF COVERAGE
Outer Shell	3 years
Compressors	3 years
Computer Controller & Power Boards	3 years
PSA Lung Assembly	3 years
Sieve Bed	1 year
Battery – Internal	1 year
Battery – External/Supplemental	1 year
Accessories	1 year

The Limited Warranty Excludes From Coverage

1. Defects caused by or related to:
    a. Abuse, misuse, negligence or accident;
    b. Failure to comply with instructions contained in the Operator's Manual;
    c. Alteration or modification by Purchaser;
    d. Unauthorized repairs or alterations;
    e. Environmental conditions (including but not limited to water, chemicals, fumes in the atmosphere, extreme heat, spillage of food or liquid, sand, dirt or the like);
    f. Lack of regular, preventive maintenance and cleaning;
    g. Damage in shipment;
    h. Other acts beyond the reasonable control of Inova Labs.
    i. Any damage caused by improper packaging when returning product to Inova Labs Inc.

Warranty Service and Coverage

Purchaser's exclusive remedy and Inova Labs' sole obligation hereunder shall be limited to repair, replacement or refund of the purchase price, at Inova Labs' option. However, this Limited Warranty shall not exclude or limit (1) Purchaser's statutory rights under the applicable national laws, or (2) Purchaser's rights against the authorized distributor or vendor.

All items claimed to be defective within the warranty period shall be properly packaged and shipped on a prepaid basis to Inova Labs (USA sales) or its authorized distributor at Purchaser's expense. A prior obtained Return Authorization Number issued by Inova Labs (USA) or its authorized distributor must properly identify returned items together with proof of purchase date. Items returned without a Return Authorization Number shall be refused and returned to Purchaser at Purchaser's expense. Inova Labs shall pay for regular shipment back to Purchaser for repair or replacement of items under this Limited Warranty.

Purchaser shall notify Inova Labs or its authorized distributor of the alleged defect within a reasonable time of discovery of the issue and in any event no later than prior to the expiry of the Limited Warranty coverage.

When repairing or replacing the item, Inova Labs may use functionally equivalent products or parts that are new, equivalent to new or re-conditioned.

Customer is responsible for proper packaging of all returned items. Any product damage caused by improper packaging will not be covered under warranty repair. Warranty does not include shipping to Inova Labs for repair.

As far as national laws permit, the warranty coverage will not be extended or renewed or otherwise affected due to Inova Labs' authorized repair or replacement. However, part(s) repaired or replacement product will be warranted for the unexpired portion of the original Limited Warranty or for sixty (60) days from the date of repair or replacement, whichever is longer.

NO REPRESENTATIVE OF INOVA LABS HAS AUTHORITY TO MAKE ANY REPRESENTATIONS OR PROMISES EXCEPT AS STATED HEREIN. THIS LIMITED WARRANTY IS EXCLUSIVE AND GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. INOVA LABS SHALL HAVE NO FURTHER LIABILITY FOR ANY DAMAGE, LOSS, COST OR FEE OF WHATEVER KIND OR NATURE, WHETHER FORSEEABLE OR NOT, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, CONSEQUENTIAL, GENERAL, SPECIAL, INCIDENTAL, INDIRECT, EXEMPLARY OR PUNITIVE DAMAGES, REGARDLESS OF THE FORM OF THE CLAIM, WHETHER IN CONTRACT, TORT OR OTHERWISE, ARISING OUT OF OR RELATING TO INOVA LABS' PRODUCTS, AND EVEN IF INOVA LABS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, LOSSES, COSTS OR FEES. TO THE EXTENT PERMITTED BY APPLICABLE LAW, INOVA LABS' LIABILITY HEREUNDER OR RELATING HERETO SHALL NOT EXCEED THE PURCHASE PRICE PAID FOR THE PRODUCT, REGARDLESS OF THE FORUM AND REGARDLESS OF WHETHER ANY ACTION OR CLAIM IS BASED ON CONTRACT, TORT OR OTHERWISE. PURCHASER AGREES AND ACKNOWLEDGES THAT THE PRODUCT IS OF A SIZE, DESIGN AND CAPACITY SELECTED BY ITS MEDICAL PROVIDER. NO AGREEMENT VARYING OR EXTENDING THIS LIMITED WARRANTY SHALL BE BINDING UPON INOVA LABS UNLESS IN WRITING, SIGNED BY A DULY AUTHORIZED REPRESENTATIVE OF INOVA LABS.

Governing Law and Jurisdiction

The rights and obligations of the parties pursuant to this Limited Warranty and any dispute arising hereunder shall be governed by and interpreted in accordance with the internal (but not the conflicts) laws of the State of Texas, USA. The 1980 U.N. Convention on Contracts for the International Sale of Goods shall not apply. If any provision of this Limited Warranty is inconsistent with applicable laws relating to Purchaser, Purchaser agrees to waive any and all rights and remedies it may have under such laws to the extent it may waive such rights and remedies. This Limited Warranty is offered as an additional benefit to Purchaser's statutory rights and it does not affect such statutory rights in any way. The parties agree and consent that the state or federal courts in Texas shall have exclusive jurisdiction with respect to any dispute arising out of or relating to this Limited Warranty. EACH PARTY EXPRESSLY WAIVES ALL RIGHTS TO A TRIAL BY JURY.

DISPOSAL

Inova Labs expects end users to dispose of LifeChoice Activox POC in an environmentally friendly way. Electrical and electronic equipment is labeled with the crossed-out wheeled bin symbol indicating that the equipment should be disposed of by the end user separate from other types of waste. The LifeChoice Activox POC device contains lithium-ion batteries, and end users should contact Inova Labs or their local distributor for disposal, collection and recycling options and terms and conditions for their country. In 2002, the European Union introduced the Directive on Waste Electrical and Electronic Equipment (WEEE). The main aim of the Directive is to ensure that WEEE is collected and treated separately. WEEE items may contain hazardous substances that should not end up in the human environment and can have adverse effects on it if they do.

OWNER'S NOTES

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